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| 49455 | 7590 | 08/09/2005 | EXAMINER | |
| STEIN, MCEWEN & BUI, LLP 1400 EYE STREET, NW SUITE 300 WASHINGTON, DC 20005 | | | PATEL, ASHOK | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2879 | |

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/647,143

Applicant(s)

RYU, WOON SEON

Examiner

Ashok Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,5-13,15,16 and 19-21 is/are rejected.
- 7) ☒ Claim(s) 2-4,14,17 and 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 082503.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the polarization plate, as recited in claim 19, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required

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corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to under 37 CFR 1.83(a) because:

(a) Figure 4 fails to show anti-projection unit and (b) none of the drawings shows the polarization plate, as mentioned in the specification at page 5, paragraph 0020. It cannot be understood as to where the anti-projection unit is placed in Figure 4. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted

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after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. Acknowledgment is made of applicant's claim for priority under 35 U.S.C. 119(a)-(d) based upon an application filed in Korea on 08/23/2002. A claim for priority under 35 U.S.C. 119(a)-(d) cannot be based on said application, since the United States application was filed more than twelve months thereafter.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Haskal et al (USPN 5,952,778).

As to claims 1 and 21, Haskal et al disclose an organic electroluminescent display (Figs. 1, 2) including: a substrate (8, 26), an organic electroluminescent unit including: a first electrode unit (6, 22) formed on the substrate in a first predetermined pattern, an organic layer (2, 20) formed in a second predetermined pattern, and a second electrode unit (4, 24) on a top surface of the organic layer in a third predetermined pattern to be insulated from the first electrode unit; a sealing unit (12, 14, 16 as shown in Figure 1), which is joined with the substrate to hermetically seal the organic electroluminescent unit; and an anti-projection unit (30), which is installed on the organic electroluminescent unit.

Since structure of the anti-projection unit of Haskal et al's device is same that of applicant's claimed device, the anti-projection structure of Haskal et al's device would prevent an image of an interior structure of the organic electroluminescent display from being projected on the substrate.

Alternatively, the limitation "preventing an image of an interior structure of the organic electroluminescent display from being projected on the substrate" is a functional

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limitation, which is narrative in form, and it does not carry any patentable weight. In order to be given patentable weight, the functional recitation must be expressed as a "means" for performing the specified function, as set forth in 35 U.S.C. 6th paragraph, and must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. In re fuller, 1929 C.D. 172: 388 O.G. 279.

6. Claims 1, 5, 7, 16, 19, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Nilsson et al (USPN 6,635,989).

As to claims 1 and 21, Nilsson et al disclose an organic electroluminescent display (Figs. 2, 3, 5 etc.) including: a substrate (34, 52,96), an organic electroluminescent unit including: a first electrode unit (30, 50, 94) formed on the substrate in a first predetermined pattern, an organic layer (28,48, 92) formed in a second predetermined pattern, and a second electrode unit (26, 46, 90) on a top surface of the organic layer in a third predetermined pattern to be insulated from the first electrode unit; a sealing unit (epoxy 20, 42, 86), which is joined with the substrate to hermetically seal the organic electroluminescent unit; and an anti-projection unit (30), which is installed on the organic electroluminescent unit.

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Since structure of the anti-projection unit of Nilsson et al's device is same that of applicant's claimed device, the anti-projection structure of Nilsson et al's device would prevent an image of an interior structure of the organic electroluminescent display from being projected on the substrate.

Alternatively, the limitation "preventing an image of an interior structure of the organic electroluminescent display from being projected on the substrate" is not carry any patentable weight for reasons set forth earlier in this office action.

As to claim 5, Nilsson et al disclose the first electrode including a plurality of first electrode lines. Opaqueness is an intrinsic property of the ceramic. Nilsson et al disclose the ceramic material is formed among the first electrode lines.

As to claim 7, Nilsson et al disclose the anti-projection unit including an opaque insulation layer formed in a non-luminescent area of the organic electroluminescent unit.

As to claim 16, Nilsson et al disclose the sealing unit as an encapsulator, which encapsulates the organic unit with a resin (col. 5, lines 35-42).

As to claim 19, opaqueness is an intrinsic property of the ceramic material.

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7. Claims 1, 7, 9 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Chung et al (USPGPub 2002/0146533).

As to claims 1 and 21, Chung et al disclose an organic electroluminescent display (Figs. 1-3) including: a substrate (12, 32), an organic electroluminescent unit including: first electrode unit (22; 36) formed on the substrate in a first predetermined pattern, an organic layer (24, 38) formed in a second predetermined pattern, and a second electrode unit (26, 40) on a top surface of the organic layer in a third predetermined pattern to be insulated from the first electrode unit; a sealing unit (16, 44), which is joined with the substrate to hermetically seal the organic electroluminescent unit; and an anti-projection unit (a layer 28 or 56), which is installed on the sealing unit.

Since structure of the anti-projection unit of Chung et al's device is same that of applicant's claimed device, the anti-projection structure of Chung et al's device would prevent an image of an interior structure of the organic electroluminescent display from being projected on the substrate.

Alternatively, the limitation "preventing an image of an interior structure of the organic electroluminescent display from being projected on the substrate" is not carry any patentable weight for reasons set forth earlier in this office action.

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As to claim 7, Chung et al disclose the anti-projection unit including an opaque insulation layer (in the form of a drying layer element 28 or 56) formed on a non-luminescent area of the organic electroluminescent unit. Note that the term ".....formed on the non-luminescent area....." is a relative term. Relative to the upside down position of the device, the opaque insulation layer of Chung et al's device is formed on the non-luminescent area.

As to claim 9, the sealing unit (18, 44,48) of Chung et al's device is a rear substrate having a recessed portion corresponding to the organic electroluminescent unit.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claim 6, 8, 15 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nilsson et al, as applied to claim 1.

As to claims 6 and 8, Nilsson et al do not disclose the ceramic insulation layer being black, as claimed by applicant.

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However, providing the opaque ceramic material in any suitable color -black being one of the suitable colors- would have been obvious to one of ordinary skill in the art for improving contrast and anti-projection property of the display.

As to claim 15, Nilsson et al disclose the sealing unit 20 wrapping the organic EL unit. However, Nilsson et al do not disclose the sealing unit 20 made of black synthetic resin, as claimed by applicant. However, providing the resin of any suitable dark color would have would have been obvious to one of ordinary skill in the art since it helps improving contrast and anti-projection property of the display.

As to claim 20, applicant is claiming the device including a polarization layer on top surface of the substrate. However, However, it is noted that applicant's claimed polarization layer is not shown to solve any particular problem or yield any unexpected results that is not within the scope of any prior art device. Accordingly, the inclusion of claimed polarization layer is considered to be an obvious matter of design choice.

10. Claims 10, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung et al, as applied to claim 1, in view of King et al (USPN 4,963,788).

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As to claim 10, Chung et al do not disclose the inside of the rear substrate including a black coating, as claimed by applicant.

However, King et al, in the same field of endeavor, is cited for showing a general structure of an organic EL device (Figures 1-2) including a black coating (18, 18') on the inner surface of a rear substrate (19, 19'), which would help prevent the image of an interior structure of the EL display from being projected on the substrate.

Therefore, it would have been obvious to one of ordinary skill in the art to provide Chung et al's device including a black coating on the inner side of the rear substrate, as taught by King et al for preventing the image of an interior structure of the EL display from being projected on the substrate.

As to claim 11, since King et al provide a teaching that black coating on the inside of the substrate would prevent the image of an interior structure of the EL display from being projected on the substrate, it would have been obvious to modify the Chung et al's device in view King et al to provide the rear substrate of black color since either way, the purpose of preventing the image of an interior structure of the EL display from being projected on the substrate would be served in a similar manner. Note that here combination of the substrate and the black layer is same as having one layer of black substrate.

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11. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung et al, as applied to claim 1,

As to claims 12 and 13, although neither Chung et al nor King et al disclose rear substrate made of semitransparent material or glass or synthetic resin, providing the substrate of any suitable material would have been obvious to one of ordinary skill in the art for enclosing different elements.

12. Claims 2-4, 14, 17 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claims 2-3, prior art of the record does not disclose applicant's claimed organic EL device including a cap having a cavity, a moisture-proof material provided in the cavity, and a porous tape attached to the cap in order to hold the moisture-proof material within the cavity, wherein the anti-projection unit includes the black porous tape.

As to claim 4, prior art of the record does not disclose applicant's claimed organic EL device including a cap having a cavity, a moisture-proof material provided in the cavity, and a black porous tape attached to the cap in order to hold the

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moisture-proof material within the cavity, wherein the anti-projection unit includes the black porous tape.

As to claim 14, prior art of the record does not disclose applicant's claimed organic EL device including a cavity, a moisture-proof material provided in the cavity, and a porous tape attached to the cap in order to hold the moisture-proof material within the cavity.

As to claims 17-18, prior art of the record does not disclose applicant's claimed organic EL device including an internal insulation layer formed between the first electrode unit and the organic layer, having openings through which the first electrode unit is exposed to the organic layer.

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Park et al, Lingfors et al, Lee et al and Takahashi et al each are cited for showing a general structure of an EL device.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashok Patel whose telephone number is 571-272-2456. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the

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organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ashok Patel
Primary Examiner
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